IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: MATEU CLIMENT, Salvador

SERIAL NO.: 10/597,891 ART UNIT: 3635

FILED: April 18, 2008 EXAMINER: Triggs, A. J.

TITLE: STRUCTURAL ARRANGEMENT WHICH ASSISTS RAPID FIRE LOAD COMBUSTION AND SMOKE AND GAS EVACUATION

Amendment B: REMARKS

Upon entry of the present amendments, previous Claims 4 and 5 have been canceled and new Claims 6 and 7 substituted therefor. Reconsideration of the rejections, in light of the foregoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of distinguishing the present invention from the prior art.

In the Office Action, it was indicate that Claims 4 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Smith patent in view of the Bisegna patent.

As an overview to the present reply, Applicant has revised previous independent Claim 4 in the form of new independent Claim 6. In particular, new independent Claim 6 now describes, with particularity, the nature of the first horizontal layer. In particular, it is now indicated that the first horizontal layer "extends across a bottom of said outside the facade sheet and said inside facade sheet". It is further indicated that the first horizontal layer has a conduit extending therethrough so as to "connect with said air chamber at a location above said first horizontal layer". It is further indicated that the air chamber extends "through said first horizontal layer". Since the term "conduit" is used in association with both the first horizontal layer and the second horizontal layer, language has been added to independent Claim 6 to indicate that the conduit is either "of the horizontal layer"

or of "the second horizontal layer". Applicant respectfully contends that these features are neither shown nor suggested by the prior art combination of the Smith patent or the Bisegna patent.

In order to achieve the advantages of the present invention, it is important to note that there is a space that is defined by the lower horizontal layer and the upper horizontal layer. The space therebetween can be a room that contains combustible material, such as furniture. The wall has an inside facade sheet that is spaced from an outside facade sheet. An air channel extends vertically between these sheets and between the floors. The air channel extends through the first horizontal layer and the second horizontal upwardly and outwardly therefrom. In order to achieve the desired effects, a conduit is provided in the first horizontal layer so as to have an opening which opens to the air channel in a space between the first horizontal layer and the second horizontal layer. Another conduit is provided in the second horizontal layer so as to have an opening which opens at the ceiling or at the bottom of the second horizontal layer. This conduit of the second horizontal layer extends upwardly so as to have an upper end communicating with the air chamber above the second horizontal layer. The air flow upwardly causes the use of the air channel which also opens above the second horizontal layer. The exits of the conduits of the first and second horizontal layers are positioned above the respectively floors so as to allow proper flow of smoke outwardly of the space between the floors. Applicant respectfully contends that the prior art Smith patent, individually or in combination with the Bisegna patent, does not show such a structure or achieve the advantages of the present invention.

The Smith patent simply shows a prefabricated fireplace. This structure is described in column 2, lines 5 - 18, as follows:

> According to the invention, a prefabricated fireplace

> comprises a firebox and flue enclosed by concrete cast as a unit. The firebox includes an inner fuel box where wooden logs or similar articles of fuel are burned, and an outer air circulation space, surrounding the inner fuel box, where room air is circulated to gain heat from the walls of the fuel box. Transparent doors are mounted to form one side of the fuel box where the fuel box extends to the surface of the cast concrete. The air tight doors open to provide access to the fuel box for addition of fuel from time to time and, when closed, prevent room air from entering the fuel box and smoke from entering the room while allowing the warmth and pleasing image of a fireplace fire to radiate into the room.

As can be seen, it is the purpose of the Smith patent "to prevent room air from entering the fuel box".

Additionally, in column 2, lines 48 - 56, it is stated:

> The bottom edges of the prefabricated fireplace has a number of metal angles cast in the concrete suitable for welding. A flat foundation of concrete is poured at the installation site, and flat strips of metal are secured to the flat horizontal surface of the foundation so as to surround the correct placement of the fireplace base. The bottom edge of the fireplace is then aligned with the base so that the metal band around the fireplace may be bead welded to the base strips.

As such, it can be seen that this prefabricated fireplace is specifically designed to be "installed" into a space of a building. It does not use the structure of the building itself to achieve the desired effects.

In the Official Action, it was indicated by the Examiner that the angle irons (shown by reference numeral "106" in Figure 7) would be equivalent of the first horizontal layer made of wrought iron. Applicant notes that this specific structure was recited in the Smith patent in column 5, lines 47 - 56, as follows:

> The base strips 106 are illustrated with a T cross-sectional configuration with the vertical portion of the T embedded in base 106 but, as discussed above with regard to the weldplates 102, the base strips 106 may be of other cross-sectional configurations amenable to being embedded, or may be flat and secured to base 108 in other ways. The base strips 106 are placed on base 108 so that the bottom edge 103 of weldplate 102 sits next to base strips 106. A bead weld may then be formed around the circumference of precast concrete

form 50 between base strips 106 and weldplate 102.

As such, these "wrought iron" members are simply used to fix the prefabricated concrete 50 in place. They do not extend, in any way, across the bottom of the outer facade sheet or the inner facade sheet of such chimney.

Relative to independent Claim 6, Applicant respectfully contends that there is no "first horizontal layer" that extends "across a bottom of said outside facade sheet and said inside facade sheet". If there is a horizontal layer, then it is simply the floor 108 of the building. As such, there would be no "conduit" extending therethrough so as to "connect with said air chamber at a location above said first horizontal layer". Additionally, it appears that the foundation 108 in the Smith patent would not have "an air chamber extending through the first horizontal layer". Quite clearly, there is no "conduit" and "air chamber" which would extend through said first horizontal layer. Additionally, and clearly, it appears that the horizontal layer 108 of the Smith patent is actually of a concrete material and, in no way, is of wrought iron.

Additionally, and furthermore, the Smith patent does not show a "conduit" extending through the second horizontal layer. There is no conduit extending upwardly so as to have "an exit communicating with said air chamber in a location above said second horizontal layer". The Smith patent fails to show the outside facade sheet as having an air channel with one end "opening at an outer side of said outside facade sheet and an opposite end opening to said air chamber in a position below said exit of said conduit and above said second horizontal layer".

The prior art Bisegna patent simply shows "an apparatus for increasing the efficiency of heating systems for buildings". In particular, it serves to reduce the flow of convection currents into and throughout the interior of a building during and after the time hot exhaust gases from the furnace

are discharged through the chimney. It can be seen that there is a conduit that does extend into the air channel of the fireplace. This air channel goes through the horizontal foundation walls and communicates with the chimney at a location above the first horizontal layer. The first horizontal layer is simply the foundation of the building. There is no "conduit" or "air channel" which extends through this first horizontal layer. Quite clearly, as indicated by the arrows in the Bisegna patent, airflow enters the chimney through the interior space in the basement of the house. There is nothing to indicate that the first horizontal layer is of a "wrought iron" material. As such, the combination of the Smith patent and the Bisegna patent would not show the "conduit" extending through the first horizontal layer "so as to connect with said air chamber at a location above said first horizontal layer" and fails to show the "air chamber extending through said first horizontal layer". As such, the prior art combination fails to show the limitations of the present invention, as defined by independent Claim 6 herein.

Functionally, it is the purpose of the Smith patent to "prevent room air from entering the fuel box". Functionally, it is the purpose the Bisegna patent "to improve the efficiency of heating systems" by introducing air into the air channel of a fireplace from a location exterior of the chimney. In contrast, in the present invention, it is necessary for the air to enter the "fuel box" in order to allow the combustible material in the space between the horizontal layers to properly exit this space. Since the present invention allows room air, and the associated smoke and hot gases, to be exited up through the floor of the building and outwardly of the building, the present invention utilizes this air to overcome the undesirable effects of the fire in the space between the first and second layers. Quite clearly, neither the Smith patent nor the Bisegna patent shows the structure of the present invention as defined by independent Claim 6 and fails to show such a structure which achieves the advantages

of the present invention. Since the structure of the present invention, the function of the present invention, and the advantages of the present invention are neither shown nor suggested by the prior art combination of the Smith and the Bisegna patents, Applicant respectfully contends that independent Claim 6 is patentably distinguishable from this prior art combination.

Dependent Claim 7 corresponds to the limitations of previous dependent Claim 5.

Based upon the foregoing analysis, Applicant contends that independent Claim 6 is now in proper condition for allowance. Additionally, the claim which is dependent upon independent Claim 6 should also be in condition for allowance. Reconsideration of the rejections and allowance of the claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

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